AMENDMENTS TO THE CLAIMS

The following listing of claims replaces all prior versions of claims in the application.

1. (Currently Amended): A solvent for dissolving nucleic acids, ~~acid, characterized by~~ comprising:

an ionic liquid which can dissolve nucleic ~~acid~~ acids, said ionic liquid comprising:

at least one cation selected from the group consisting of imidazolium cations and pyridinium cations, and

an anion which is selected from the group consisting of BF_4^-, PF_6^-, AsF_6^-, SbF_6^-, $AlCl_4^-$, HSO_4^-, ClO_4^-, $CH_3SO_3^-$, $CF_3SO_3^-$, $(CF_3SO_2)_2N^-$, a halide ion and a carboxylic acid ion having a total of 1 to 3 carbons.

2. (Cancelled)

3. (Currently Amended): The solvent for dissolving nucleic ~~acid~~ acids of claim 1 or 10, wherein ~~2 which is characterized in that the ionic liquid is composed of an~~ said anion ~~which~~ is selected from the group consisting of said [[a]] halide ion [[or a]] and said carboxylic acid ion having a total of 1 to 3 carbons.

4. (Currently Amended): The solvent for dissolving nucleic ~~acid~~ acids of claim 1 or 10, wherein ~~which is characterized in that~~ the ionic liquid is a neutralized ionic liquid.

5. (Currently Amended): The solvent for dissolving nucleic ~~acid~~ acids of claim 1 or 10, wherein ~~or 2 which is characterized by being~~ said solvent is adapted to preserve nucleic ~~acid~~ acids or to react nucleic ~~acid~~ acids.

6. (Currently Amended): A nucleic acid-containing solution, ~~characterized by~~ comprising nucleic ~~acid~~ acids dissolved in an ionic liquid.

7. (Currently Amended): A method for preserving nucleic ~~acid~~ acids, ~~characterized by~~ comprising the step of preserving nucleic ~~acid~~ acids in a dissolved state within an ionic liquid for a long term.

8. (New): The method for preserving nucleic acids of claim 7, wherein said long term is at least 48 hours.

9. (New): The method for preserving nucleic acids of claim 7, wherein said long term is at least 120 hours.

10. (New): The solvent for dissolving nucleic acids of claim 1, wherein said anion is selected from the group consisting of PF_6^-, AsF_6^-, SbF_6^-, $AlCl_4^-$, HSO_4^-, ClO_4^-, $CH_3SO_3^-$, $CF_3SO_3^-$, $(CF_3SO_2)_2N^-$, said halide ion and said carboxylic acid ion having a total of 1 to 3 carbons.

11. (New) A method of dissolving nucleic acids, comprising the step of:

dissolving nucleic acids with an ionic liquid which can dissolve nucleic acids,

wherein said ion liquid comprises:

at least one cation selected from the group consisting of imidazolium cations and pyridinium cations, and

an anion which is selected from the group consisting of BF_4^-, PF_6^-, AsF_6^-, SbF_6^-, $AlCl_4^-$, HSO_4^-, ClO_4^-, $CH_3SO_3^-$, $CF_3SO_3^-$, $(CF_3SO_2)_2N^-$, a halide ion and a carboxylic acid ion having a total of 1 to 3 carbons.

12. (New): The method of dissolving nucleic acids of claim 11, wherein said anion is selected from the group consisting of PF_6^-, AsF_6^-, SbF_6^-, $AlCl_4^-$, HSO_4^-, ClO_4^-, $CH_3SO_3^-$, $CF_3SO_3^-$, $(CF_3SO_2)_2N^-$, said halide ion and said carboxylic acid ion having a total of 1 to 3 carbons.

13. (New): The method of dissolving nucleic acids of claim 11 or 12, wherein said anion is selected from the group consisting of said halide ion and said carboxylic acid ion having a total of 1 to 3 carbons.

14. (New): The method of dissolving nucleic acids of claim 11 or 12, wherein the ionic liquid is a neutralized ionic liquid.